

Special Reference Material Report

GM 25 and GM 26

High Resilience, Flexible Polyurethane Foam

This material was prepared to provide a uniform lot of cellular plastic for use in fire research. Produced under the sponsorship of the Products Research Committee (PRC) on the Fire Safety Aspects of Cellular Plastic Products, these materials are being distributed by the National Bureau of Standards, Office of Standard Reference Materials, as Special Reference Materials, GM 25 and GM 26.

The chemical and physical information provided for this material has been derived from data submitted to PRC by the manufacturers of the material and/or independent testing laboratories. Neither PRC nor NBS assumes any responsibility for the accuracy of this information.

FORMULATION:

	<u>Weight Percent</u>
Polyol - Glycerine based polyoxypropylene and ethylene glycol capped with primary hydroxyl groups, 6000 mol wt	62.4
Isocyanate - Toluene diisocyanate modified	30.5
Blowing agent - CO ₂ produced by isocyanate reaction with water	1.5
Catalyst - Tertiary amines	4.4
Processing aid - Phosphate ester	1.2

PHYSICAL PROPERTIES:

	<u>U.S. Customary</u>	<u>SI</u>
Density, lb/ft ³ (kg/m ³)	2.75	44
ILD, 25% R, lb/50 in ² (N/323 cm ²)	26	116
65% R, lb/50 in ² (N/323 cm ²)	75	334
Sag factor	2.88	2.88
Tensile strength, lb/in ² (kPa)	10	69
Elongation, %	100	100
Tear strength, lb/in (N/m)	0.8	140
Compression set, %	3.5	3.5
Rebound, %	73	73

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